1. Apparatus for conditioning mammalian blood for subsequent use in a medical procedure, the apparatus comprising:

a cabinet having a secure environment and a door providing the only access to the secure environment;

an input system for transporting a blood charge from a source to the cabinet;

a flask removably contained in said secure environment and coupled to the input system to receive said charge;

stressors coupled to the cabinet and positioned for operation to create a conditioned charge in the flask, said stressors comprising an oxygen source removably coupled to the cabinet, and an ozone generator coupled to the oxygen source to generate an ozone/oxygen mixture for delivery to the flask;

an output system coupled to the flask and including a receiver for the conditioned charge; and

a control system contained in the cabinet and operable upon closing the door to lock the door and to then automatically condition the charge and to cause the charge to move from the flask to the receiver, whereby a charge from the input system is conditioned and delivered to the receiver, the door is then unlocked and the conditioned charge is ready to be removed and used to complete the medical procedure.

2. Apparatus as claimed in claim 1, wherein the input system includes an input syringe operable to draw blood to form at least part of said charge, and input tubing connecting the input syringe to the flask to transport the charge into the flask.

3. Apparatus as claimed in claim 2, wherein the input tubing is thermoplastic tubing, and in which the cabinet includes a first heat sealer operable to seal and sever the input tubing, whereby the input syringe can be separated from the cabinet and flask for subsequent disposal.

4. Apparatus as claimed in claim 2, wherein the input syringe includes a valved T-connector having first and second ports so that the first port is available to draw the

charge and the second port is attached to the input tubing for use to transport the charge to the flask.

5. Apparatus as claimed in claim 1, wherein the flask has an internal volume sufficient to permit the charge to bubble thereby increasing the surface area available for the stressors to condition the charge.

6. Apparatus as claimed in claim 1, wherein the flask includes a main portion defining an internal volume to receive the charge and a connector assembly coupled to the main portion.

7. Apparatus as claimed in claim 6, and further including a probe coupled to the connector assembly and contained in the main portion, the probe extending to a leading end and having an input lumen coupled to the input system to deliver the charge into the internal volume and an output lumen coupled to the output system for delivering the conditioned charge to the output system.

8. Apparatus as claimed in claim 7, wherein the probe further includes a gas lumen coupled to one of said stressors for delivering a gas stressor to the charge to cause the charge to bubble.

9. Apparatus as claimed in claim 7, wherein the probe further includes a further lumen and a temperature sensor positioned in the further lumen for monitoring the temperature of the charge.

10. Apparatus as claimed in claim 7, wherein the lumens extend to the leading end.

11. Apparatus as claimed in claim 8, wherein the lumens extend to the leading end.

12. Apparatus as claimed in claim 9, wherein said further lumen ends adjacent said leading end at a side opening and in which the temperature sensor terminates in the side opening for better thermal contact with the charge.

13. Apparatus as claimed in claim 12, and further including a filmic sleeve surrounding the temperature sensor to avoid contact between the sensor and the charge

14. Apparatus as claimed in claim 9, wherein the temperature probe further includes an extension engaged in said further lumen at the leading end of the probe and extending downwardly, and in which the flask includes a socket at the bottom of the main portion and extending downwardly to accommodate at least part of said extension to locate the probe in the main portion of the flask.

15. Apparatus as claimed in claim 14, wherein the socket is crimped to hold the extension in the socket.

16. Apparatus as claimed in claim 1, wherein one of said stressors is an infrared source positioned in the cabinet under the flask for radiating the charge to heat the charge in the flask.

17. Apparatus as claimed in claim 1, wherein one of said stressors is an ultraviolet source positioned in the cabinet for subjecting the charge to ultraviolet light to stress the charge in the flask.

18. Apparatus as claimed in claim 1, wherein the cabinet includes a cavity for receiving the flask in a downward movement, the cavity being positioned to locate the flask in relation to the stressors.

19. Apparatus as claimed in claim 1, wherein the cabinet includes a front recess, and a top depression above the recess, the door being shaped to cover both the front recess and the depression when the door is in the closed position.

20. Apparatus as claimed in claim 1, wherein the receiver is an output syringe.

21. Apparatus as claimed in claim 20, and further including an actuator attached to the cabinet and positioned to operate the output syringe as directed by the control system to first draw the conditioned charge from the flask and to then be used to inject the charge into the patient.

22. Apparatus as claimed in claim 20, and further including thermoplastic output tubing connecting the flask to the output syringe to transport the conditioned charge to the syringe.

23. Apparatus as claimed in claim 22, and further including a second heat sealer attached to the cabinet and positioned to be operated by the control system to seal and sever the output tubing between the flask and the output syringe.

24. Apparatus as claimed in claim 21, and further including a knocker attached to the cabinet and positioned to rap the output syringe to dissipate any bubbles in the conditioned charge contained by the output syringe.

25. Apparatus as claimed in claim 1, wherein the control system includes an identification system for recognizing a first identifier carried by the operator, and a second identifier carried by the patient, the identification system being adapted to recognize and to then permit the operator to operate the apparatus.

26. Apparatus as claimed in claim 1, and further including an operator card reader for reading discrete information on a card used to identify the operator of the apparatus to prevent unauthorized use.

27. Apparatus as claimed in claim 26, and further including a patient card reader for reading discrete information on a patient card used to identify the patient so that the patient can be identified by presentation of the patient card to the patient card reader.

28. Apparatus as claimed in claim 1, and further including a printer for providing a printout of data relating to the procedure for an individual patient.

29. Apparatus as claimed in claim 1, wherein the control system includes a graphic display interface for the operator.

30. A cabinet for use in conditioning mammalian blood for subsequent use in a medical procedure, a blood charge being conditioned in a flask and the cabinet having:

a front defining a front recess;

a top defining a depression adjacent to the front recess;

a door hinged for movement between an open position and a closed position in which the front recess and the depression are covered by the door to create a secure environment;

a lock coupled to the cabinet and to the door to lock the door in the closed position;

a cavity extending downwardly from the top depression within the secure environment, the cavity being adapted to receive the flask; and

a control system coupled to the door lock to sense the condition of the door to establish that the flask is securely positioned in the cabinet, and that the door is locked before the charge is conditioned.

31. A cabinet as claimed in claim 30 and further including a mount for a receiver which receives the conditioned charge from the flask, the mount being positioned in the front cavity.

32. A cabinet as claimed in claim 31 and further including a knocker mounted adjacent said mount in the front cavity and positioned for striking the receiver repetitively to break up bubbles in the conditioned charge.

33. A cabinet as claimed in claim 32 in which the knocker includes an impact tool mounted in the front cavity for striking the receiver from one side and a spring mounted in the cavity on the opposite side from the tool whereby when the tool impacts the

receiver, the spring stores energy and rebounds to push the receiver towards the tool to start a new cycle.

34. A cabinet as claimed in claim 33 in which the knocker is coupled to the control system to cause the knocker to rap the receiver at a frequency of about one Hertz.

35. A cabinet as claimed in claim 30 and further including a mount in the front cavity for an output syringe which receives the conditioned charge from the flask, the syringe being held by the mount in the front cavity with the operator lowermost.

36. A cabinet as claimed in claim 30 and further including an actuator in the front cavity for coupling to the operator to activate the output syringe to draw the conditioned charge into the syringe within the secure environment.

37. A cabinet as claimed in claim 30 and further including at least one heat sealer mounted for operation in the secure environment when the door is closed to sever thermoplastic tubing used to make connections to and from the flask.

38. A cabinet for use in conditioning mammalian blood for subsequent use in a medical procedure, a blood charge being conditioned in a flask and the cabinet having:

a front;

a top;

a door hinged for movement between an open position and a closed position in which at least a portion of the front and a portion of the top are covered by the door to create a secure environment;

a lock coupled to the cabinet and to the door to lock the door in the closed position;

a cavity extending downwardly from the top wall within the secure environment, the cavity being adapted to receive the flask; and

a control system coupled to the door lock to sense the condition of the door to establish that the flask is securely positioned in the cabinet, and that the door is locked before the charge is conditioned.

39. A cabinet as claimed in claim 38 and further including a mount for a receiver which receives the conditioned charge from the flask, the mount being positioned in the secure environment.

40. A cabinet as claimed in claim 39 and further including a knocker mounted adjacent said mount and positioned for striking the receiver repetitively to break up bubbles in the conditioned, charge.

41. A cabinet as claimed in claim 40 in which the knocker includes an impact tool for striking the receiver from one side and a spring mounted on the opposite side from the tool whereby when the tool impacts the receiver, the spring stores energy and rebounds to push the receiver towards the tool to start a new cycle.

42. A cabinet as claimed in claim 41 in which the knocker is coupled to the control system to cause the knocker to strike the receiver at a frequency of about one Hertz.

43. A cabinet as claimed in claim 38 and further including a mount on the front wall for an output syringe which receives the conditioned charge from the flask, the syringe being held by the mount with the operator lowermost.

44. A cabinet as claimed in claim 38 and further including an actuator on the front wall for coupling to the operator to activate the output syringe to draw the conditioned charge into the syringe within the secure environment.

45. A cabinet as claimed in claim 38 and further including at least one heat sealer mounted for operation in the secure environment when the door is closed to seal and sever thermoplastic tubing used to make connections to the flask.

46. A cabinet as claimed in claim 38 and further comprising an infrared source positioned below the cavity for operation to heat the charge when the flask is contained in the cavity to thereby condition the charge.

47. A cabinet as claimed in claim 38 and further comprising an ultraviolet source positioned about the cavity for operation to shine on the charge when the flask is contained in the cavity to thereby condition the charge.

48. A cabinet as claimed in claim 38 and further comprising an ozone generator for receiving oxygen and converting at least some of the oxygen to ozone, and an ozone delivery system for coupling to the flask when the flask is in the cavity to bubble a mixture of ozone and oxygen into the charge to condition the charge.

49. A flask assembly for use in apparatus having a cabinet made to receive the flask assembly for conditioning mammalian blood, the flask assembly including:

a flask in the form of an envelope defining a substantially enclosed volume and including a top and a bottom, the top having an access opening and an outlet;

a connector assembly coupled to said top of the flask;

a probe extending from the connector assembly, through the access opening and having a top end and a leading end, the probe being sealed in the access opening and defining an input lumen for transporting the charge to the bottom of the flask, an output lumen for transporting conditioned charge from the bottom of the flask out of the flask, and a gas lumen for feeding gas into the flask to condition the charge when a charge is in the flask;

the connector assembly including outlet tubing coupled to said outlet to lead spent gas out of the flask, and inlet tubing coupled to the gas lumen;

a pair of gas connectors coupled to the platform and connected to the respective gas inlet tubing and to the gas outlet tubing to make gas connections when the flask assembly is mounted in the apparatus, whereby as the flask is engaged in the cabinet the gas connectors engage a gas supply system for conditioning said charge in the flask before removing the conditioned charge.

50. A flask assembly as claimed in claim 49 in which said enclosed volume is in the order of about 70 times the volume of the charge to be entered into the flask.

51. A flask assembly as claimed in claim 49 in which the flask is of low density polyethylene.

52. A flask assembly as claimed in claim 49 in which the platform includes an overhanging portion extending outwardly from said top, and in which the gas connectors are mounted on the overhanging portion and in which he gas supply system includes fittings mounted on the cabinet for engagement with the gas connectors when the flask is engaged in the cabinet.

53. A flask assembly as claimed in claim 49 and further including a cover attached to the platform to contain the platform and present a cleaner appearance.

54. A flask assembly as claimed in claim 53 in which the cover is attached to the flask.

55. A flask assembly as claimed in claim 54 in which the cover is a snap fit on the flask, and in which the cover and flask are arranged so that the cover fits on the flask with the outlet tubing aligned with the outlet in said top.

56. A flask assembly as claimed in claim 49 and further including in-line filters in the gas inlet tubing and in the gas outlet tubing, the in-line filters being mounted on the platform.

57. A flask assembly as claimed in claim 49 in which the flask defines an upper cylindrical portion and a smaller lower cup at the bottom of the flask, the cup being proportioned to receive the charge, and in which the leading end of the probe is contained close to said bottom.

58. A flask assembly as claimed in claim 49 in which the probe includes a further lumen containing a temperature probe for monitoring the temperature of the charge, the probe being located near the leading end of the probe.

59. A flask assembly as claimed in claim 58 in which said further lumen ends at a side opening in the probe, and in which the temperature probe is positioned in the opening for better thermal conductivity from the charge to the temperature sensor.

60. A flask assembly as claimed in claim 58 and further including a an extension engaged in the leading end of said further lumen and projecting downwardly, and in which the flask includes a socket at the leading end shaped to receive the extension to locate the leading end of the probe relative to the flask.

61. A flask assembly as claimed in claim 49 in which: the flask defines an upper cylindrical portion and a smaller lower cup at the bottom of the flask, the cup being proportioned to receive the charge, and in which the leading end of the probe is contained close to said bottom; and in which the flask assembly further includes an extension engaged in the leading end of said further lumen and projecting downwardly, and in which the flask includes a socket at the leading end shaped to receive the extension to locate the leading end of the probe relative to the cup.

62. A flask assembly as claimed in claim 61 in which the probe includes a further lumen containing a temperature probe for monitoring the temperature of the charge, the probe being located near the leading end of the probe.

63. A flask assembly as claimed in claim 62 in which said further lumen ends at a side opening in the probe, and in which the temperature probe is positioned in the opening for better thermal conductivity from the charge to the temperature sensor.

64. A flask assembly as claimed in claim 49 in which the probe includes a further lumen containing a temperature probe for monitoring the temperature of the charge,

the probe being located near the leading end of the probe, and in which the platform includes an overhanging portion extending outwardly from said top, and electrical contacts mounted on the overhanging portion for engagement automatically with suitable fittings mounted on the cabinet when the flask is engaged in the cabinet.

65. A flask assembly as claimed in claim 64 in which: the flask defines an upper cylindrical portion and a smaller lower cup at the bottom of the flask, the cup being proportioned to receive the charge, and in which the leading end of the probe is contained close to said bottom; and in which the flask assembly further includes an extension engaged in the leading end of said further lumen and projecting downwardly, and in which the flask includes a socket at the leading end shaped to receive the extension to locate the leading end of the probe relative to the cup.

66. A flask assembly as claimed in claim 64 in which said further lumen ends at a side opening in the probe, and in which the temperature probe is positioned in the opening for better thermal conductivity from the charge to the temperature sensor.

67. A flask assembly as claimed in claim 49 and further comprising input and output syringes releasably mounted on the connector assembly, the input syringe being connected to the input tubing and the outlet syringe being connected to the output tubing.